DOCUMENT RESUME

ED 142 533 SP 011 305

AUTHOR Doll, Russell C.
TITLE The Defining and Limits of Educational Innovation and Change.
PUB DATE 77
NOTE 32p.; Paper presented at Annual Meeting, Association of Teacher Educators (57th, Atlanta, Georgia, February 2-5, 1977)

EDRS PRICE MF-$0.83 HC-$2.06 Plus Postage.
DESCRIPTORS Class Management; *Educational Change; *Educational Environment; *Educational Problems; Effective Teaching; Financial Policy; Interaction Process Analysis; Parent School Relationship; Political Influences; Resource Allocations; School Community Relationship; *Social Environment; *Social Factors; Teacher Behavior; *Teacher Role

ABSTRACT

The major theses of this paper state that the concept of educational change is different from the concept of educational innovation and the effectiveness and broad scale applicability of educational change is limited by influences often overlooked by planners and implementors of change. The minor theses state that (1) the fate of most educational change is determined in the field and not by the appropriateness of the change to a learning theory or educational need; (2) the success of the change has little to do with the expertise of the planners; and (3) institutional and noninstructional influences rather than the worth of the change determine successful implementation on a broad basis. Institutional and educational influences that limit change are: (1) type of school; (2) conflicts in teachers' roles; (3) problems in programs planned by experts for non-experts and average people who are teachers. Noninstitutional influences discussed are: (1) society's priorities in resource allocation; (2) decisions of political and appointive bodies; (3) city, county, and state planning decisions and real estate practices. (Author/JD)

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THE DEFINING AND LIMITS OF EDUCATIONAL INNOVATION AND CHANGE

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by Russell C. Doll
University of Missouri-Kansas Cit

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I INTRODUCTION

The major theses of this paper state that educational "changes" are concepts more appropriate to discussion of the classroom than are the concepts of educational "innovation", and the effectiveness and broad scale applicability of educational "change" on the classroom level is limited by instructionally related and non-instructionally related influences[1] often overlooked by the planners and implementors of the "change."

The minor theses state that because of the fundamental nature of the above influences (1) the fate of most educational "innovation/change" is determined in the field and not necessarily determined by the appropriateness of the "innovation/change" to a learning theory or educational need; (2) the success of the change has little to do with the expertise of the planners; (3) non-instructional influences rather than the worth of the "innovation/change" often determine whether a promising "innovation/change" will be implemented successfully on a broad basis.

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[1] Instructionally related influences include, among other things, type of school setting, teaching role expectations and role conflict, instructional approaches designed by experts, and attempts to disseminate and promote new programs. Non-instructionally related influences include, among other things, social priorities, legislative decisions, and decisions of political and appointed bodies. Other non-institutionally related factors are probably more influential in limiting the effectiveness of educational "innovation/change" than those mentioned above. They will not be dealt with in this paper because their relevancy to the topic is not as direct, space does not permit an adequate development of their possible potency, and they have been dealt with by the writer in other publications. These influences include pre and post natal nutrition, post natal stimuli, the parenting/child relationship, early language as fostering complex physiological development, and the effects of noise and crowding, effects of mass media as a modeling influence, and the pervasive, albeit unmeasurable, effects of a "national ethos."

Paper presented at the Association of Teacher Educators, Georgia State University, Atlanta, Georgia, January, 1977.

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II INNOVATION AND CHANGE DEFINED

Although the theme of this conference is "innovative education," the use of the single concept and term "innovation" is too broad for the purposes of this paper and possibly inaccurate when applied to the classroom setting. A short discussion is needed on my interpretation and use of the concept and term "innovation" in order to justify the use of "educational change" in place of "innovation."

The concept of innovation seems to be more applicable to the "hard" sciences such as chemistry, physics, or medicine than to the "soft" sciences and especially education. Innovation, as I see it, has a permanency beyond simply doing things a different way, no matter how elaborate this "different" way may be. An innovation assumes a permanent structure which exists independent of the intial and varied changes. That is, once various applications and testings have taken place the innovation becomes self sustaining because it acquires its own permanent strength and identity. Because of this strength and identity innovations provide an unchangeable foundation. Innovations provide a basis upon which, and a framework within which, changes in individual practice occur.

The discovery and use of penicillin is an example. Penicillin was an innovation. It had its own strength and identity and was foundational as a treatment. Although individual doctors have their own ways of treating patients, many of the ways being quite different one from the other, they all must rely upon a foundation of research results which distinguishes penicillin as not only being fundamentally different from other medications, but providing a totally new framework within which they could exercise their uses of the innovation. The novel and varied uses to which each doctor puts penicillin are not innovations, but changes in the practice of this innovation.

The work on DNA provided a whole new concept in genetics. It was, indeed, an innovation. But the work that followed has been basically changes in practice (research) based on the foundation of the innovation. Because of its foundational quality innovation does provide a springboard for further innovation, possibly

beginning with changes developed within the innovation. The work on recombinat genes is one example of an innovation (DNA) leading to changes in research leading to another possible innovation with the E coli.

Finally, the discovery of the incandescent light was an innovation. The continued improvement of the basic innovation such as the use of a vacuum or of argon and nitrogen gas to prolong the life of a filament were also innovations." However, changes in shape, use, combinations of gases, different metals for filaments, are simply that - changes in daily practice and use, and change through variations on the foundational innovations.

Innovation in the hard sciences also have a greater chance for success than does "innovation" in the soft sciences, particularly education, because of the inherent base of "stability" provided by its basic "principles" or "laws." Once the creative mind can manipulate the theories or formulations of basic laws certain predicted and continually replicable results occur. If they don't occur after the initial manipulation then there is a reworking of the formulations. One can rework certain formulations to produce a propellant for a moonshot if the first one does not work. One can also, with much success, apply in practice the known laws of physics to unsuccessful space flights. There is enough "truth" there for the outcome to "hold still" and wait for a successful return to the drawing board. Though the process may go through many transmutations, once it is successfully established as feasible, it follows "laws" or "truths" within itself in a rather regular manner of stability and replicability.

But human beings in their social-cultural mileus, and with their psychological make-ups, have their own particular laws or truths within their own constantly shifting environments. The basic conditions of human beings and the situations within which they operate, and within which the social/educational/cultural "innovations" are applied, change from day to day, and indeed hour to hour. It is difficult to rework an attempt at "social innovation" for human beings as you

would a propellant for a moonshot. Human beings and their socio-cultural environment simply will not "hold still" in enough cases to allow for the success of a return to the drawing board.

In the soft sciences, the farther one gets from the theory or idea, and the closer one gets to the need for continued and daily application developed from the social/philosophical/psychological/educational, etc. theories or "laws," the less possibility there is that there will be replicability, predictability, and success on a broad basis. And so, in most cases, in the soft sciences, the term, "innovation" is inaccurate if one asks for the stability of a practice over time, a strength of its own, a foundational quality with continued predictable outcomes, and situations in which the innovation is not effected by outside forces and gradually worn away. Instead, most "innovations," especially in education, are hybrids which come into existence, are practiced for a while, and die. Or else, they simply wither away. In the soft sciences, and especially education, we must speak only of "change" on a tentative basis.

Once we accept the fact that "change" is probably the best we can hope for then we may be well on our way to avoiding the pitfalls brought about by the single minded adherence to an educational practice encouraged by the concept of "innovation."

Applying the above discussion to education I would like to propose a crude typology of "innovation" and "change" in order to justify the restrictive nature of a part of my thesis, (i.e. the discussion of change on only "the classroom level"): to justify the later use of the term "educational change" in the remainder of the paper: the rejection of "innovation" as a concept to assist large scale improvements in education.

III DISTINCTIONS AMONG TYPES OF INNOVATION AND CHANGE IN EDUCATION

1. Revolutionary Innovation

Educational innovation which accompanies, or is reflective of, a major change in the social, economic, and ideological tenents of a society may accurately be called an innovation in education. Innovation of this kind took place in Prussia before the Franco-Prussian War, in Russia after 1918, China after 1948, and possibly the United States in the late 1800's and early 1900's. It is basic, foundational, and usually stems from a generally accepted political "law" or "truth" or "popular" feeling from which a host of educational changes or practices arise.

This relationship between education, innovation and the basic ideas of society is called by Henry M. Levin the "correspondence principle."[2] It is a principle which states there is a correspondence between schooling and the aims and ideology of a society. Until that correspondence is broken through changing the basic tenents of the society there can never be any true educational innovation, only changes in educational practice. When the correspondence is broken innovation is the result and the innovation is reflected in the daily practices and teachings[3] which reflect the new correspondence.

2. Social/Conceptual Innovation

More common to a society than revolutionary political or economic changes are evolutionary changes in economics, political thought and practice within an evolving, but basically stable political, economic, and social structure. These societal changes are often a catalyst for educational innovation. Examples of such changes in the fundamental structure and ethos of a society are the industrial revolution,

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[2]Martin Carnoy and Henry M. Levin, The Limits of Educational Reform (New York: David McKay Co. Inc.) 1976.

[3]Urie Brofennbrenner provides an example of this in Two Worlds of Childhood: USA and USSR when he comments on the fact that the goal of the American teacher is to reinforce the idea of a strong independent person while the Soviets concentrate on reinforcing the idea of a good comrade and group member. Also see Hedrick Smith's discussion of Russian and American education in The Russians (New York: Ballantine Books) 1976.

the extension of the voting franchise to every adult citizen, and the advent of free compulsory schooling for every child.

Other sources of non-revolutionary innovation are major shifts in the conceptualization, theorizing, and research pertaining to, let us say, children's learning styles, developmental characteristics, and their place in society. Examples of such shifts are the research and writing of such men as E.L. Thorndike, John Dewey, Jean Piaget, and Benjamin Bloom, among others.

The effects on education of these two influences are broad in scope. The arguements which develop the innovations are often conceptual, theoretical, or experimental. They have a charismatic quality focusing on the "improvement" of society, enhancing living conditions, improving life chances, etc. It is an innovation whose time has come or a time whose innovation has come. Frequently, long battles are fought on many fronts to implement this kind of innovation. Many people not directly related to education such as politicians, labor people, philanthropists, clergy, the "socially conscious" are doing battle.

This kind of innovation is not always reflected in direct classroom application. Instead it forms a framework for statements of philosophy, goals, and formation of curriculum. It becomes a major "movement" or "school of thought," often losing its innovative quality after a decade or two although it was indeed an innovation since it served as a foundation for future practice and did not itself change.

3. Social/Corrective Change

This type of educational change is transitory and is not an innovation. It seldom becomes a wide spread "movement" or "school of thought." Having been developed to meet various crisis situations it is pallative in nature. It is meant to answer the question as to "Why-Can't-Johnny-Read?", or the challenge felt in

the launching of a sputnik, or the awakening of minority awareness. Examples of this type of change are career education, black studies, women's rights studies, integrated textbooks, Right-To-Read programs, the combating of sex stereotyping, science fairs, bilingual programs, ethnic curriculum, Teacher Corps, humanistic teaching, etc.

The changes have little theoretical or research basis for implementation; have a greater social immediacy often reflecting an ideological position rather than a research or theoretical base as in the Social/Conceptual. Often the Social/Corrective changes are not even an "educational" necessity but are implemented to satisfy popular thought or pressure groups.

While some of these changes branch into a semi-permanent part of the ongoing system of education, most are grafted onto a continuing part of education, which has a stronger conceptual and research base. The Social/Corrective changes are important in that huge sums of money, energy, printers ink, and talk accompanies them.

4. Instructional/Particularistic Change

Of the two changes this type relates closest to the classroom instructional/skills program. Ideas regarding instructional settings such as open classrooms, learning centers, simulation gaming, pods, and mainstreaming and the many technical/mechanical aspects of teaching such as talking typewriters, television instruction cardboard construction, use of consummable materials, and field experiences, are included in this type of change. Also included are instructional changes to meet socializing needs or to produce an instructional "advance" in a particular subject matter as this "advance" is defined by subject matter specialists. Such changes might include the New Math, Man - A Course of Study in the social studies, the Sullivan Reading Materials, Schools Without Failure in the affective parts of teaching, teaching standard English as a second language, and behavior modification.

This type of change may or may not have a research base. Its proponents often feel it is the "correct" way to teach. Like the Social/Corrective, the Instructional/Particularistic tends to be ideological. However, the Instructional/Particularistic has an "instructional ideological" base, rather than "social/ideological." Whereas the Social/Corrective battles are often fought within the schools, in newspapers, and on picket lines, the Instructional/Particularistic battles are often inter and intra disciplinary within the educational establishment.

What we see in the classroom, what relates directly to teachers, what educators, and educational planners are most concerned with here is not educational innovation, but educational change. It is change on which hopes exist for a rather immediate improvement in educational outcomes.

Educational changes are severely limited in the degree and extent to which they can ever fulfill the hopes, intent, and expectations of educational planners. This paper will now concentrate on some of the factors limiting educational change.[4] Hopefully, this present analysis will provide a different perspective as to why educational change is as limited as it is in its ability to initiate and sustain long term, broadly based "improvement" in educational practice.

IV. INFLUENCES LIMITING EDUCATIONAL CHANGE

I will first dispose of the obvious. Educational change is limited by poor planning, mismanagement, and incompetent people. It is enhanced by good planning, good management, and competent people. This section discusses the influences which limit educational change when there is good planning, good management, and competent people.

The impact of educational change seems to be limited by the following:

a. Institutional and Educational Influences

1. Type of school setting.

2. The conflicts in role experienced by teachers.

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[4]Discussions of what I call innovation have been dealt with in length and quite adequately in a host of publications dealing with educational, historical, and cross cultural studies of education, economics and sociological analyses of education. The last two types have seldom been looked at critically except, primarily, in regard to studies of program outcomes.

3. Problems in implementing programs planned by experts and exceptional teachers for non-experts and average teachers.

b. Non-Institutional Influences

1. Social priorities in resource allocation.

2. Decisions of local, political and appointive bodies.

3. Planning decisions and real estate practice

Even though the Institutional and Educational Influences appear as separate listings, they interact in their impact, varying in the intensity of impact and with varying degrees of limiting influences within certain school settings. Further, they produce a sum greater than their parts. The Non-Institutional Influences, though seemingly independent of institutional and educational outcomes, nevertheless have a subtle though potent impact on the schools.

1. The Type of School Setting

The Social/Corrective and Instructional/Particularistic changes are almost always implemented within a school setting. The quality of the school environment, the amount, detail and intensity of mundane things needing to be done on a daily basis to keep the school operating, the scope and severity of unplanned happenings, the pressures (real or imagined) under which teachers and administrators operate, are some of the influences which combine to create a school setting. These influences are, in part, created formally by the school system or informally through small group, personal and institutional dynamics. The success of an educational change is often dependent upon the teachers reactions to the different influences and the effect these reactions have on their perceptions of how they can function as teachers. The dynamic interaction of the formal and informal, the reactions and perceptions, combine to produce different types of school settings, and, in turn, determine the degree of limitation of educational change.

Yet, we have tended to plan for the implementation of change with only the barest acknowledgement that school setting may determine the fate of the best planned change. Indeed, we have tended to think that well planned educational change holds an intrinsic goodness and if adequately field tested (acknowledging differ-

ences in socio-economic levels among schools) its successful implementation is dependent primarily upon teacher competency and in providing adequate equipment and materials. This simplistic notion ignores real differences in types of school settings which we will now discuss.

A year long study of Chicago's schools identified at least four types of school settings in a big city. The schools were first placed into the typology in a clinical fashion which later statistical work substantiated. The method and statistical results were presented elsewhere so details will not be presented here.[5]

The four types of schools are:

Highly Academically Oriented (A Type)
Average Academically Oriented (B Type)
Low Academic-Semi Problem Oriented (C Type
Highly Problem Oriented (D Type)

a. Limitations and Enhancement of Change in an A Type School

In the A type schools a teaching climate is demanded by students and parents. High academic expectations are held. The potential for the success of an educational change is very good. The press of extraneous matters such as truancy, tardiness, counseling students, police visits, constant transfers with their attendent record keeping, and the referrals for special academic assistance and counseling is almost non-existent. Breaking up fights, disciplinary actions, coping with strangers and high school dropouts in the halls, counseling parents, and adapting curriculum are not necessary. The dysfunctional effects on instructional outcomes of yard and lunchroom duties, record keeping and classroom interruptions are minimized.

Teachers operated in an atmosphere conducive to teaching, academic planning, and program implementation. It was a situation in which most of what was attempted was successful. It is a real possibility that academic success could have been achieved by using intelligent aardvarks and witty chimpanzees as teachers and that

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[5]Russell C. Doll, "Toward a Typology of Big City Elementary Schools." Paper presented to the American Educational Studies Association, Conrad Hilton Hotel, Chicago, Illinois, 1972.

educational change played little part in educational achievement.

Yet, limiting influences were present. The major influences were the parents and the students. They saw very little need for the Social/Corrective change. Their world was secure and insulated. They had little patience with Instructional/Particularistic since the children had a solid foundation in many skills almost before hitting kindergarten. The parents and students demanded more traditional, structured kinds of teaching which would provide an intensive and extensive skills, informational, factual, and liberal background to compete for college preparatory positions in elite high schools.

In the primary grades the parents weren't interested in Sesame Street puppet fun, or learning centers and independent activity development centers. They wanted their children to read, compute, and write with foundational skills to edge out close competition in the upper grades. When certain aspects of special programs were introduced, invariably modifications would take place to move them closer to more "traditional" learning experiences. Principals were reluctant to implement the "new curriculums" because parents would brook no wasted motion in learning. Hallways used as classes, role playing, games, New math, new reading programs, all underwent transitions in emphasis from "experiential and development" to "academic and skills" mastery.

Teachers were intimidated by the better financial situations of the parents, their travel experiences, cultural knowledge, expertise in certain fields and with their broad general knowledge in many social, economic, historical and cultural fields. One parent, in all sincerity, apologized to a teacher for the rude behavior of her child. The parent was dismayed because, "They had taught Johnny to be polite to the servants at home."

Children, too, were intimidating influences tending to force teachers into the safer, more "traditional" lecture format. In some instances an "inquiry/discussion" format put the teacher up against the wall if children came from homes of experts in astronomy, history, or economics. There are only so many times a teacher can bail

himself out in a discussion by admitting, "Well, I don't know. Let's have Johnny look it up," and still retain respect among intellectually oriented children. Hostility, unlike in other types of schools, was often expressed in academic sniping so sometimes even the lecture format failed to protect a teacher.

b. Limitations and Enhancement of Change in a B Type School

Limiting influences of the B Type schools ironically seem to be found in the syncrony between teachers and parents acceptance and encouragement of educational change. This hospitable climate and stable school environment nurtured the sprouting of welcome educational changes like a buried log nurtures the sprouting of mushrooms.

For the most part the school situation is a stable one with a majority of academically average, some academically talented, and some academically slow children. Teachers are comfortable, see the results of their teaching, and because of this are most receptive to suggestions for changes from their University classes or the Central office.

The interests, beliefs, social status, cultural experiences, and educational ideas of the teachers, in most cases, parallel those of many parents and educational planners. Parents have read the new educational books with faith while most parents in the "A" schools have read them with informed skepticism. Parents push for the open classrooms, inquiry approaches, the use of halls as learning places, typewriters which sing, dance, and tell stories, Schools Without Failure, using paper airplanes to teach the laws of aerodynamics, etc. They believe the gospel of the Divine-Goodness-of-Change. And they believe, in most cases, because it seems to work. And it seems to work because their children seem happier and are not pressured and are being treated "humanistically" in a relaxed, "natural" (?) learning environment where they are "discovering knowledge" rather than "being told." While their children might have achieved as well within a lecture framework the process was as important as the results.

Both Instructional/Particularistic and Social/Corrective changes are accepted. Some, (but not a majority) of the parents are socially aware and have acutely de-

veloped social consciences. Many parents, when a new social cause is discovered, respond with the intensity of a sciatic nerve rubbed by a ruptured disc. They ask for cultural exchanges, look for sexism in texts, check cafeteria menus for too much sugar or too little roughage, and ask the school to boycott grapes and lettuce. As long as the principal can direct the parents to sympathetic teachers and keep the social awareness at a limited visibility, the Social/Corrective changes do well. The majority of the parents who are simply accepting the school and teacher as they are remain happy if the children are achieving.

And all remain happy because a teacher can be a teacher with educational change or without, with parental blessing, if the teacher can only say the right words (developmental, humanistic, inquiry based), put up the right bulletin boards (environmental concerns, pictures and platforms of opposing national candidates), and have the right activities (classes in halls, building pyramids to study Egypt, mock elections, passing blindfolded in the halls to understand physical handicaps), make the interest centers look good, (big vinyl pillows, boxes for kids to hide or study in, teachers sitting on the floor with reading groups), and keep the atmosphere casual enough (playing kickball with your class while your deodorant fails you, wearing pant suits, or leisure suits or jeans and track shoes, and letting the class vote on their classroom name.)

Despite the high potential for the success of educational change as envisioned by planners, the behaviors necessary to maintaining the image of a relaxed, innovative and humanistic curriculum, with an atmosphere open to activities and contact with school patrons, gradually wear down staffs and administration. The staffs begin to function as would well conditioned marathon runners who, at each quarter mile, were given two ounces of lead to carry. Little by little teachers are worn down by mundane and trivial things which add up to drains in time and energy.

There were the bake sales; newspaper subscriptions for the study of current events linked to reading, linked to English; fire drills; P. T. A. times; show assemblies;

special films; special programs; special records to be kept for the special curriculum; more self study times to become adept at new methods. Furthermore, the changes usually required total commitment to the new methods. But there was little change or reduction in things necessary to keep the school operating. Lunchroom duties and times were scheduled according to the convenience of the cafeteria managers and to administrative necessity. Recess duties remained. In some cases, teachers had to eat with the children. Most devastating was the lack of released time during the day needed for teachers to simply keep up organizationally with change requirements. While parents, superintendents, and planners all gloried in the surface implementation and the listing of all the exciting things going on, there was little appreciation or understanding of what was necessary in total committed time and energy to keep a school functioning and to make an educational change successful, all during the same five hours.

The time given up during the day and the enormous amount of time needed in outside preparation, planning, establishing background, and running a classroom began to take its toll. The actual implementation of new approaches began to move further and further from that envisioned by the planners. In self defense, and often unconsciously, teachers kept the form but lost the substance. Like the invasion of China the invasion of changes became absorbed into a greater part - in this case, the vast reaches of the regular school day. The teachers simply could not sustain the pace needed for change.

Little wonder, in even the best of situations, the impact of educational change is limited. Anyone with actual classroom experience could have predicted the "non-graded" classroom would end up "graded," that most "open" classrooms end up with milling children, that little differences are found in achievement between schools utilizing "innovation" and schools using more traditional methods.[6]

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[6]Albert Chalupsky, Exploring the Impact of Educational Innovation, U. S. Office of H. E. W., October, 1976.

Segmental innovative change cannot be sustained without systems change - and even then there is a question that is never asked and that is whether change can ever be successful on a broad scale.

c. Limitations and Enhancement of Change in "C" Type Schools

The same mundane, but necessary, tasks needed to simply run a school are present in the "C" type as in the "B" type. Their impact, however, is exaggerated because the teachers need to deal with more extraneous matters before and after an academic climate is attained. There are more discipline problems with more serious consequences; truancy and tardiness records need to be kept; transfers are frequent; special governmental or district aid and assistance programs demand time; there is an increase in school disturbances such as false fire alarms; remedial needs of students increase. Classrooms become influenced by children with disruptive behaviors so that it takes a special kind of teacher to set up a learning climate.

In "C" schools most academic and behavioral success was dependent upon the capabilities of the teachers. Well planned, "Prepackaged" materials, well thought out special assistance, the best of the new change curriculums, will not "carry" the teacher in the "C" schools as in the "B". Even the willingness to see new approaches work, coupled with the extra assistance of in-service training will not insure success.

The teacher must be a topnotch classroom manager as well as topnotch teacher to get change to "work." Perhaps the key difference to the limits on educational change between "B" and "C" schools is that in a "B" school well planned educational change may "carry" a teacher who is reluctant to implement the change or one who is willing to implement change, but who has poor classroom management. Whereas the "C" school requires that a teacher be willing to expend the physical and emotional energy necessary to implement change and cope with the exaggerated demands of an "average" day. Teacher's needed the combination of being a good teacher and a good classroom manager.

The amount of physical and emotional energy needed to simply cope leave most teachers with enough energy to only implement teaching programs requiring the minimum of change and complexity of operation.

The limiting effects on educational change were not difficult to assess. The Social/Corrective changes were, by and large, ignored by the staff and parents unless they dealt with racial concerns and environmental matters (in the mainly or totally ethnic schools) or athletic and environmental matters (in the mainly or totally white nationality or blue collar schools). Although sympathetic to the need for social correction, teachers were selective in what they dealt with, concentrating on Social/Corrective changes which could fit tightly into some plan for obvious academic subject matter (environment) or assist in some theorized academic return (improvement in school work through integrated texts.) And as long as no community pressure demanded concentration on Social/Corrective change they tended to give it lip service or a bulletin board.[7] Unlike the "B" schools, change was limited to the degree of physical and emotional energy a teacher had, as well as intuitive ability in getting children to behave. Successful change was not so dependent on how "right" it was socially, or pedogically or how adequate the manuals, inservice workshops, or planners ideas.

Successes were situational, unable to be replicated beyond the school, or teacher, or a classroom. Most of the teachers and administrators wanted them to work but the overwhelming demands of simply maintaining a functioning school were too much.

d. Limits of Educational Change in "D" Schools

Educational change in "D" schools was limited by the basic human instinct of survival. The following quote typifies the feelings of teachers in this type of

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[7] I would suspect that if the study were done today, one would find teachers in the "C" schools rather cool to the Social/Corrective legislation of mainstreaming and the "B" teachers more accepting. Teachers in the "D" schools are probably doing one-and-a-half gainers off the roofs.

school. "Each day I'd enter the school. Each day the problems would begin. And each day I would say, "Dear God, what can I do?"

The task of teachers in these schools is to keep order and survive. The functioning of the classroom and the schools is influenced by a multiplicity of forces beyond the control of the teacher or principal. The teachers often felt that teaching in their schools was, on the whole, impossible, unrewarding, and in some cases dangerous to their mental health, self image, stability of personal life, and physically dangerous. The perception of a "D" type school as a physically dangerous place was not simply due to overactive imaginations. During the year of the study, there were 155 reported attacks on teachers. Of these, one attack took place in an "A" school, which was 0.6% of the attacks, five were in "B" schools for 3% of attacks, twenty in the "C" schools for 13%, and 129 in the "D" schools for 83%. Attacks were divided into Criminal and Non-Criminal attacks. Eighty-four percent of the Criminal attacks took place in "D" schools and 83% of the Non-Criminal attacks were in "D" schools.

The limitations on educational change in these schools is obvious. The only hope was found in the primary grades where teacher perceptions were much more positive than in the upper grades.[8] Educational change in "D" type schools, on a broad scale, productive basis, is not only limited but non-existent except in the imaginations of curriculum developers, university professors, and the romanticists who see a few "successful" lower grade classrooms and shout from the rooftops that "it" can be done.

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[8]But unfortunately educational change seems only to work fairly well in the lower grades. I challenge anyone to show me an educational change successful in the upper grades or in the high schools of our big cities which was successful over a long period of time or could be replicated. There are none. The most promising of the educational changes for toddlers is the Milwaukee project and that concentrates on intervention with, mainly, non-school related factors. The Distar program in the middle grades, offers hope for some broad based success.

2. Teacher Role Expectations And Conflict

Teachers internalize expectations for themselves as "professionals." The fulfillment of the "professional" expectations provide a role reward concerned with academic success for their pupils. Teachers also internalize expectations for themselves as "nurturent professionals" within a profession. The fulfillment of the "nurturent" expectations provide a role reward concerned with the quality of their personal relations with their pupils, themselves as a "good" person and an understanding human being. It is a role reward concerned with the affective outcomes.

In most cases professional and nurturent rewards are obliquely related to the inherent worth, educational appropriateness, or good planning of an educational change. Professional and nurturent rewards are usually found in (1) the coincidence between teachers internalized professional/nurturent roles and their actual behaviors on the job, (2) the professional and affective outcomes of their behaviors, and (3) the opportunity to grow in their professional expertise while having an opportunity to pass this expertise on to others.

Teacher commitment is developed and sustained by the intensity or continuity of reward in either one or both roles. When teachers must continually engage in job tasks which conflict with their internalized professional/nurturent role expectations, with little visible positive outcomes, reward is diminished and commitment to teaching in general, and educational change in particular, becomes limited.

1. Internalized Expectations and Teachers Behavior

a. Professional Role.

Some research[9] has shown that teacher training, inservice work, and professional publications have encouraged teachers to internalize the role of "Teacher" as their professional role. Part of the reward in this "Teacher" role is highly dependent upon opportunities to engage in teaching tasks even if the teaching takes place in

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[9]Russell C. Doll, "Teachers Role Conflict: The Results of A Study." Paper presented to the Second National Conference of Urban Education, Milwaukee, Wisconsin, 1976.

an academically difficult situation. (As opposed to a behaviorally difficult situation or an academically and behaviorally difficult situation.) Teachers were committed to their work at school, home, university, or inservice with coincidence of classroom teaching behaviors and role expectation.

The other part of the "Teacher" role reward concerns academic outcomes. Teachers needed to receive periodic reward in the concrete outcomes of pupil achievement. Assurances that their work will have a future pay off for the students is not enough to sustain their committment to continuing productive teaching behaviors.

The internalized professional role expectation is an out growth of the justified concentration on developing teachers classroom skills. Crude content examination of professional publications, workshop and preservice offerings, indicate a tendency to deal exclusively with methods and materials. There is little to indicate that teaching is other than the teaching act alone and that adequate cognitive and mechanical manipulation should not but produce academic success.

For better or worse the wider society reinforces this role. The public thinks grade level scores are always a measure of a "professional" teacher. State legislatures indirectly define professional success by their mandating the academic results every student must attain by a certain grade level. "Pop" educational writers such as Conant and Rickover rightfully lament the decline in academic outcomes although in so doing subtly define a role expectation. Newspaper editorials and columnists also define professional success in these categorical ways. And the "Teacher of the Year" almost always is the person who has the highest achieving pupils whether it is National Merit Scholars or Science Fair successes.

Implicit in all this is the development of an expectation concentrating almost exclusively on the teaching act, planning for instruction, diagnosing pupil instructional needs, and the unquestioned outcome should be pupil success. Less than

the above implies the teacher is doing something wrong as a professional and continued failure means something is wrong with the teacher as "professional" and "Teacher."

6. Nurturent Role

At the same time we have emphasized the role of the teacher as a nurturent person. We rightfully attempt to make teachers sensitive to the students affective needs, his problems, home situations, effects of academic expectations and the devastating effects of undue school expectations. But in so doing we have implied that when children do poorly or misbehave it is because teachers have failed in their nurturent role. They fail as human beings relating to other human beings.

This kind of thought was especially prevalent in the late 60's when "insensitive" and "racist" teachers were accused of causing not only school failure and rebellion but death at an early age. Writers such as Kozol, Kohl, Herndon, and Goodman defined the nurturent role by their insistence that human beings were absent from classrooms. The claims of Edgar Friedenberg, reflected a general mood and way of thinking. "The urban schools," he wrote, "are run by awful people." Friendenberg thought teachers to be "Tyrants" "silly and malicious" "They do not have good intentions" and they have "faith in punishment."[10]

This process of definition through denial of a traits existence tended to reinforce a nurturent role defined by the description of its opposite. It was a nurturent role best exemplified by a Mr. Chips quality and romaniticized in almost myth-like tales of how teachers saved children through love and compassion. So sure were we of the teacher's affective relations being a primary cause of school failure that we spent millions sensitizing experienced teachers and training new teachers to the host of children's problems. And then we left

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[10]More reasoned statements such as Robert Havinghurst's had little effect upon the general wolf pack atmostphere. Havinghurst wrote, ". . . Friedenberg's conflusions about the character of teachers in slum schools is certainly not proven . . . The statement quoted above goes beyond non-responsibility and perhaps is irresponsible."

We left them with the idea that nurturence would carry the day. And the writers counted their royalties, the publishers their profits, the University professors the stars in their crowns, and the classroom teachers the children needing nurturence.

C. Role Conflict

The problem is that teachers have a multiplicity of tasks leading to behaviors which conflict with their internalized roles. This conflict is greatest in the "C" and "D" schools and less in the "A" and "B" schools. Teachers in some "C" but especially in "D" schools see themselves in the role of policemen, acculturating agents, truant officers, parents, disciplinarians, and clerks. At times they were school security guards, drug "officers", contraband and weapons confiscators during locker searches. While some of the "petty" tasks are part of the job, when the ratio of time and energy spent on them exceeds that of actual teaching and planning the teacher feels inadequate and a failure as a professional leading to a kind of "professional drain." They could not engage in the act of teaching coincident with their internalized expectations. Their children were not achieving at grade level, and, indeed, gave very little positive academic return except for a hard core in the "C" schools. As defined by the profession and the public "education" was failing the children, schools were failures, and teachers were inadequate. As defined by the teachers internalized role they were professional failures, and the diatribes and criticisms, the academic results and the actual tasks in which they engaged daily, substantiated their self image as failures.

The difficult "C" and "D" schools demanded more "control behaviors" and lessened the opportunity for "nurturent" behaviors. When the "quality" of the nurturent behaviors decreases, and the control behaviors intensify the overt and covert hostility in a viscious cycle, the teacher felt inadequate and a failure as a human being. This lead to increased "emotional drain" and a decrease in a willingness to interact with pupils. Ironically, the more they understood the depth of the social problems, the more futile it seemed for them to attempt any change. They feel that what they did to

help the child was merely palliative. They felt they were helpless to aid the children because the problems were rooted in out-of-school factors. The more they felt hopeless, yet had to control behavior, the greater failures they saw themselves as human beings in the nurturent role ascribed to and expected of them as teachers.

The conflict in role leads to changes in the teachers' self image, sense of personal worth and professional worth. They have failed in the internalized professional and nurturent role as defined by their training, the public, writers, and legislatures. They are not "Teachers," no matter how many or how prestigious the educational changes in which they may be engaged. They are not good human beings within the profession. They doubt themselves and they doubt the worth of what they do. Unless one is a machochist, retreat from the situation takes place in one fashion or another. In the case of educational change, it means going through the motions. In other cases it might mean a retreat from teaching to find success in union work, community work, or politics. The success of educational change becomes seriously limited in these cases.

3. Discrepancy Between Professional Expertise And Actual Behaviors

A major thrust in much educational change is the development of subject matter expertise, a sharpening of teaching skills and an appreciation of the subject matter. We want the teacher to become a semi-scholar and teach through love of the subject matter, passing this love on to the students. If continued professional growth means anything it certainly means a scholarly love for learning, for the rools of scholarship, and an appreciation of the beauty of a subject.

To become proficient in greater degrees develops pride. To internalize a love of ones subject is to develop a deep desire to share this love and appreciation with others. The more this pride and desire is developed (as we hope it will) the more the person demands his professional audience and environment be conducive to sharing the beauty of subject matter in an atmosphere of appreciation. The professional situation should be receptive to the teachers growth.

We see this need daily. In University life we hear the grumbles of University people when they finish with unappreciative undergraduates. The frustration in professional expertise being ignored was exhibited in a concert I attended when the conductor stopped the orchestra and told the audience to shut up, find their seats, and stop coughing like seals. We see it in the remark of a professional hockey player who stated he disliked playing in cities with expansion teams because the fans don't understand or appreciate good hockey. Why should classroom teachers feel any differently about their expertise?

In many "C" schools and especially "D" schools the appreciative audience and environment is often missing. With little opportunity to share, except in a rudimentary fashion, teachers wish to escape to other situations. Educational change in their eyes becomes the wild dream of sequestered planners who live in a different world. In this ironic fashion the professional growth and expertise provided teachers, leading to an internalization of love for ones field, operates to limit

educational change rather than to enhance it. This latent dysfunction also helps to account for teacher's hostility towards planners of educational change, especially when they are University based.

4. Construction of Change By Experts

Almost all major educational change is designed by subject matter experts. This is probably as it should be although it is both a strength and a weakness. It is a strength because what is included in the content is "orthodox" and "true." It is a weakness because not everyone can think in an "orthodox" fashion to arrive at the "truth."

Mathematics experts are a case in point. Unfortunately, mathematics experts think like mathematics experts. They know the hidden truths, the subtleties and convolutions of their discipline. They can see the beautiful interweaving of the underlying principles which form the larger tapestry. They don't think like average people when it comes to their field (statisticians also come to mind). If they *did* think like average people when it came to their field they would not be experts.

Some of my best friends are mathematicians and statisticians. They refuse to believe that poor slobs like me - mathematical morons - can't learn, or teach mathematics in the obtuse, rather opaque, and certainly oblique fashion in which they have helped design educational change such as "New math" approaches. If one takes a look at the new math texts and workbooks it seems as if the teacher and pupils are required first to understand the principles, subtleties and theory of the discipline. This is fine and is certainly a requirement necessity for *final* total comprehension, understanding, and meaning. It may, however, be responsible for some added and unnecessary frustrations and failures for many teachers and students. Like it or not, teachers and students are average people. They are being asked to think and perform like experts in many other subject matter areas. Quite often those proposing the change are exceptional people and exceptional teachers. The problems arise when the not-too-exceptional people and teachers have to deal with the exceptional ideals and ideas. The New math, science as inquiry, Man - A Course of Study, to name a few, have as basic requirements to their implementation a rather

sophisticated approach which often are impediments to initial understanding rather than aids.

In many schools, for many teachers and students, these approaches do not fit learning styles. This form of presentation is extremely difficult when teaching children with histories of school failure or needing immediate and concrete feedback in their work. Pupils whom I taught, in the central city areas of Chicago, needed to first have success in the rote manipulation of math or the direct application of science principles before we moved into the inquiry or inductive methods I learned of in college and in "retooling" workshops. When using these methods my classroom espirit-de-corp decreased leading to discipline problems. It really takes a strong "ego" and a history of success to undergo the trauma of being told "no" during the inductive process. Children in the "C" and especially "D" schools give up out-of-hand or lash out in rebellion at the teacher (or at their classmates if they like the teacher). My experience was not an isolated case.

The educational change designed by experts simply cannot be implemented successfully on a broad scale basis for school districts having a variety of different types of schools and a host of teaching and learning styles, requiring different alternatives in educational change - or indeed - no change at all!

But all too often, educational change assumes an ideological quality with doctrinal authority. It is often accompanied by examples, and testimonials of success by the proponents of the change who have become the disciples and evangelists. These are often University people, or teachers who were successful with the change, or teachers, and administrators within whose social thought or ideological or pedagogical bias the change fits. Whole school systems, often blindly, accept conversion and adapt the change and teachers then are judged by the academic equivalent of the Codex Theodosiou

Because of doctrinal rigidity founded in the "orthodoxy" and "truth" of expertly designed curriculum the changes are forced upon pre-service and inservice teachers. Often new teachers accept the doctrine with faith only to be crucified on the cross of reality within certain schools. The experienced teachers often return

inspired until the press of mundane school matters or clash of method and learning and teaching styles forces them into the academic equivalent of the Black Mass, as they move towards modification more appropriate to their classroom in the real world.

If we are serious about educational change which can be functional, replicable and predictable then we had better understand that some educational change is limited in its implementation, be it Social/Corrective or Instructional/Particularistic. We had better seriously consider the individual differences of teachers and students as we pretend we do. These differences cannot be pushed into one kind of teaching style or learning sequence or method because it fits a social or academic ideology. Those who argue categorical change are arguing doctrine. Doctrine cannot be implemented on a broad basis, in different types of schools. It might be more realistic to admit that all too often small bands of dedicated people in certain situations are the best ones to implement change as planned and the best we can hope for on a large scale basis is change implemented (with some basic integrity maintained) but altered to fit different teaching and learning styles. If we don't re-evaluate our expectations for educational change then we may be forced to continually live with evaluations of educational change which show them to have achievement results no different from non-change curriculum.

V. NON-INSTITUTIONAL LIMITING INFLUENCES

This section will attempt to show how non-institutional influences magnify and intensify the limiting impact of institutional influences. For example, (educational change) will never be able to be expanded or difficult school situations altered as long as the society holds different priorities as to it's allocation of its resources. Also, certain legislative, political, planning, and legal decisions hold potential for altering the social situations outside the school so as to drastically effect the in-school situations. These effects are insidious because non-institutional decisions are seldom related to the effect upon the schools. The negative effects on education became an inherent part of the total picture of why educational change on a large scale can never be successful.

1. Social Priorities and Resource Allocation

A society has a limited resource which it can allocate. Allocations to one area of society means deprivation from another. For schools tax monies are a main resource. The following three examples provide some indication of how just one social institution, professional sports, and the social priority ti is given, draws money resources from education.

a. Jackson County, Missouri will be spending at least 50 million dollars for twin stadia. Forty-eight million are from general obligation bonds with twelve million from revenue bonds. All costs considered, a final figure might approach 95 million. The stadium will serve people from a six county region but only one county, housing taxpayers of the beleagured Kansas City School system, will be paying off the bonds. It is estimated that 80% of football season ticket holders live in affluent suburbs outside of Jackson County. Levy elections for the schools have failed six years in a row. Sports, art, and library programs have been dropped in the schools.

   Teachers have been asked to modify their teaching to meet certain new educational changes, yet the school system has been forced to cut supplies, increase student load and increase teacher duties. The district has just ended the second of two devastating strikes for which the teachers have asked for educational improvements. After the strike the State dropped the district from AAA rating to a AA rating citing the same deficiencies which the teachers wanted corrected. Morale is at rock bottom with funding in a similar position. The potential for successful implementation of educational change would seem to be limited.

b. The day New York teachers were turned down on their requests for extra funding for minor pay increases and instructional imporvements, was the same day the city of New York approved an allocation of 24 million dollars to revamp Yankee Stadium so the ball team wouldn't move. The Yankees won the pennant last year in their new stadium. A friend of mine in the schools, an assistant principal, is lucky to be able to sustain his regular program much less implement educational changes within a difficult school situation.

c. The city of New Orleans has built a 164 million dollar Superdome. It is estimated that the Superdome can't sustain itself in its heating, working and lighting even if it were booked up solid for everyday of the year. The city must supplement it. Meanwhile the New Orleans school system plays around with educational change, but, as I understand it, limits the extent of the implementation because of a limited budget.

2. Political Decisions

Decisions of legislative bodies aimed at alleviating problems in one sector of the society, often determined by a necessary political and social expediency, ultimately effect the total social system. Schools, one of the most vulnerable of the institutions in the social system, are often negatively affected by these "remedial" decisions and, alone, are left to solve problems caused by the decisions.

a. In Kansas City, Missouri, it was decided that a new highway was needed to improve traffic flow through the city and from outlying eastern and southern areas to downtown. The highway cut through a black low-income area forcing movement into a stabalizing integrated area on the southern edges of the city. Middle-income blacks and whites left the area and the schools reached a racial and socio-economic tipping point which necessitated program implementation of both the Social/Corrective and Instructional/Particularistic kind. Workshops were held for the faculty, but the school changed quickly from a "B" to a difficult "C" type. The school district was faced with continued middle income flight. Meanwhile a law suit to stop the highway has held up development for years. Property values and tax bases have eroded. In no way did the legislators intend for this to happen, but in their attempt to solve problems caused by traffic flow they inadvertantly dealt a severe blow to the schools.

b. State redevelopment acts provide tax abatement incentives to developers in an attempt to rehabilitate decayed central city areas. In Missouri full tax abatement is given for 10 years and 50% tax abatement for 15 years. Hundreds of acres are being developed tax free with no attempt to get a sliding scale of taxation to make up for the loss of tax land and the increase in city services such as garbage, police, fire, and schools which serve the new developments in different and unique fashions but with less money available

At the same time this almost carte blanche legislation encourages

absentee land-lords to buy up massive amounts of housing stock which could have been rehabilitated. Instead it is allowed to deteriorate so as to qualify under the redevelopment act. Middle-income blacks and whites leave these marginal areas which, with some assistance, in rehabilitation and conservation, enforcement of codes, and concentration of maintaining services, could have held the middle-income parents for the schools.

c. In order to encourage business storage, both national and international, in the county, the Jackson County Legislature rescinded personal property taxes on goods stored in private warehouses. The schools will lose 1.25 million dollars in taxes. The same district mentioned before is in this county. An ironic note: When I attempted to get some of my colleagues to attend the hearing in order to argue against the rescinding they replied they would, but were involved in designing a program of educational change for the district involving open classrooms - reading and self-improvement. There was little understanding of the relationship between the implementation of their programs and the legislature's decision. The programs were curtailed before they started for lack of funds.

3. Planning Decisions and Real Estate Practices

a. In order to maintain areas of cities able to provide racial and income mixes in the schools, as well as tax bases, a black and white middle-income oriented population is needed. In order to maintain that population the city needs attractive and sound housing stock in safe communities.

Yet, new housing developments, sewer extensions, utility extensions are continually approved by city planning commissions and city councils, which actions can only pull people from central city, salvageable areas. There are no compensating mechanisms whereby preservation and rehabilitation of existing sound housing stock can become as much a profit motive for developers as are new developments. The continuing resource allocation for new housing, as opposed to maintaining older housing, eventually affects the schools through easy population movement into new areas.

b. Coinciding with the new development is the tendency for cities to see old, but viable areas as suitable for spot zoning, non-conforming uses, and housing conversion. Absentee landlords see the areas as "profit" areas. The quality of life deteriorates and the middle-income movement continues.

c. Newspapers fail to see the relationship between their "features" on homes and the effect on the schools. Such specials as "Parade of Homes," showing housing almost exclusively out of the city draw people from "gray" areas which can be maintained by a strong and active middle-income population. Encouraging the pull of the newer areas is the practice by banks, savings and loan institutions, home and car insurance companies, of "red-lining" whole areas.

The above are not related directly to the enhancement or limitations of

educational changes. But the legislative decisions and Social priorities are some of the most potent forces in developing and maintaining out-of-school situations which influence the changes that could and do take place in the society. They define the parameters of institutional assistance as well as provide the setting and conditions for functioning. They, as much as the institution, determine limits of successful implementation of educational change.